

The economic value of beaches — a 2013 update

By

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ABSTRACT

Few Americans are aware that the travel and tourism (T&T) industry is among America's largest industries, employers, and earners of foreign exchange; and beaches are its leading tourist destination. In an era where the availability of jobs is a major issue and their offshoring a significant concern, the T&T industry is the largest employer in the U.S. and its jobs are difficult to offshore. U.S. economic competitiveness is of concern, since it runs large trade deficits, but its largest trade surplus is in T&T, where it runs a multi-billion-dollar surplus even with China. Survey after survey finds that beaches are the leading U.S. vacation destination. However, beach erosion is a major concern for many beaches. As beaches such as Waikiki decrease in width tourists head to other destinations, including foreign beaches. Beach nourishment has been shown to increase tourist numbers and provide a good return on investment, in particular to the federal government through taxes. However, the U.S. lags much of the world in the growth of tourism infrastructure investment including restoration of beaches. As a result, the growth of U.S. tourism is projected to lag much of the rest of the world. Renewed U.S. investment in tourism infrastructure is important to grow the economy and number of jobs and to reduce the U.S. trade imbalance.

Houston (1995a; 1996; 2002; 2008) described the economic value of America's beaches. He noted that the travel and tourism (T&T) industry is becoming increasingly dominant in economies throughout the world. However, few realize that T&T is among America's largest industries, employers, and earners of foreign exchange; and beaches are its leading tourist destination. Although high-technology industries grab the news, the U.S. runs a trade deficit in these industries and high-technology jobs are increasingly "offshored" in today's world economy. T&T is difficult to offshore and is providing the economic growth, jobs, and foreign exchange that make the U.S. competitive in a world economy. However, tourists have choices in international tourism, and the U.S. has neglected tourism including supporting infrastructure investments. This paper updates and lends support to the conclusions of Houston (1995a; 1996; 2002; 2008) on the economic importance of beaches to the national economy.

T&T AND THE ECONOMY

T&T is the world's largest industry, contributing \$6.3 trillion in 2011 to the world's Gross Domestic Product (GDP) (World Travel and Tourism Council

2011a) and exceeding the GDP of all countries other than the United States (United Nations 2010). Similarly, T&T contributes \$1.3 trillion to America's GDP (World Travel and Tourism Council 2011b). This is 8.7% of U.S. output and makes it the third largest contributor to GDP behind real estate rental and leasing (12.6%) and manufacturing (11.7%) (U.S. Bureau of Labor Statistics 2012a; World Travel and Tourism Council 2011b). T&T also produces \$124 billion in annual tax revenue for all levels of government in the United States; without this revenue, each U.S. household would pay \$1,055 more in taxes (U.S. Travel Association 2012).

T&T MEANS JOBS IN AMERICA

T&T is both the world's and America's largest employer (Figure 1) providing 255 million jobs throughout the world (8.7% of jobs) and 14.3 million jobs in the U.S. (10.2% of total employment) — more than one out of every 10 jobs (U.S. Bureau of Labor Statistics 2012b, World Travel and Tourism Council 2011a). In contrast, all U.S. manufacturing industries from Apple to General Motors to Boeing employ only 12.0 million people, having steadily lost 3.2 million jobs in the past 10 years (U.S. Bureau of

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Labor Statistics 2012c). States compete with each other to attract manufacturing industries, especially high-technology industries, but few have policies to attract T&T businesses. However, the number of high-tech U.S. manufacturing jobs declined almost 30% from 2000 to 2010 with only 1.8 million remaining; about one-eighth the number of T&T jobs (Washington Post 2012). For example, Figure 2 shows employment trends at IBM that currently has less than a quarter of its employees located in the U.S. Since 2004, about 85% of R&D employment growth in U.S. multinational corporations has been abroad (TradeReform 2012).

Not only are manufacturing jobs in a long-term decline, but many service-sector jobs face "offshoring." Princeton economist Alan Blinder, who was vice chairman of the Federal Reserve during the Clinton administration, says that 25% of American service-industry jobs are at risk of being offshored (Blinder 2009). T&T is a rare industry where offshoring is difficult. There can be intense competition among countries for tourism, but if a tourist wants the tourist experience at Fisherman's Wharf in San Francisco, the tourist has to go to San Francisco. In the current tough economic times, Adrian Cooper, chief executive of Oxford Economics, recently said of T&T: "It's one of the healthiest sectors in the United States ..." (New York Times 2012b).

T&T IS KEY TO INTERNATIONAL COMPETITIVENESS

The U.S. is a major player in the international T&T industry. International tourists, who represent 10%-15% of tourists in the U.S., spent \$153 billion in 2011, a

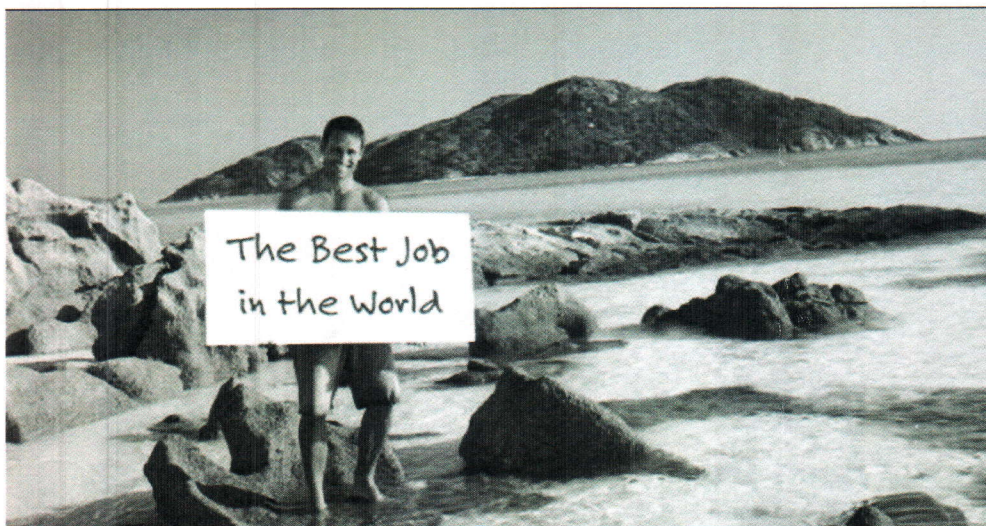
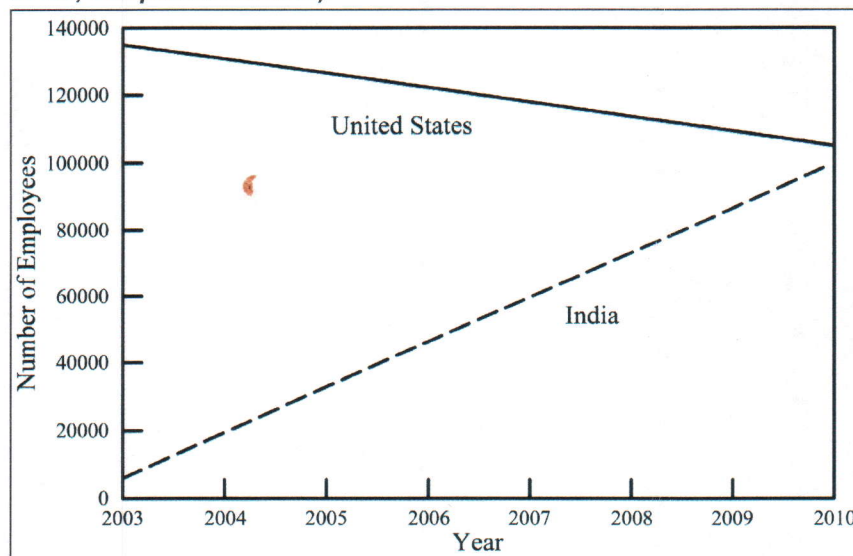


Figure 1. Travel and tourism is America's leading employer.

Figure 2. Number of IBM employees in the U.S. and India (New York Times 2012a; Computerworld 2010).



14% increase over 2010, and growth in 2012 has been rapid and is estimated to total about \$170 billion (Brand USA 2012; U.S. Department of Commerce 2011). This is greater than the combined value of exports in the few areas where the U.S. has significant exports — agricultural grains, aircraft, computers, and telecommunications equipment (U.S. Census Bureau 2012). The U.S. ran a trade deficit of \$727 billion in 2011 but, in contrast, T&T was one of the few bright spots of trade with international tourists spending more in the U.S. than U.S. tourists spend abroad, resulting in a trade surplus of \$43 billion (U.S. Department of Commerce 2011). T&T has the largest surplus of any trade category, being greater than the U.S. trade surplus of \$19 billion for

all agricultural products and \$24 billion for civilian aircraft as seen in Figure 3 (U.S. Department of Commerce 2011). The U.S. even had a T&T trade surplus of \$4.4 billion with China (U.S. Department of Commerce 2011). Americans take pride in U.S. high-technology industries, but the U.S. ran a trade deficit in high-technology goods of almost \$100 billion in 2010 (National Science Foundation 2012). This deficit has quadrupled since 1998, whereas exports of high-technology goods by China, India, and countries in Southeast Asia have increased during the same timeframe from \$75 billion to \$375 billion annually (National Science Foundation 2012).

International tourists visiting the U.S. produced estimated tax revenues in 2011

of \$17 billion (U.S. Travel Association 2009; U.S. Department of Commerce 2011). The federal government receives 56% of tax revenues from domestic T&T, and state and local governments receive 28% and 17% respectively, despite local governments providing much of the tourist-support infrastructure (U.S. Travel Association 2009). Assuming the federal government receives the same percentage of taxes from international as domestic tourists, it received \$9.5 billion in taxes from international tourists in 2011.

BEACHES ARE KEY TO U.S. T&T

Beaches are the key element of U.S. T&T, since they are the leading tourist destination (Figure 4). A survey by TripAdvisor (2011) of planned 2012 travel found that beaches are the leading U.S. tourist destination with 44% of survey respondents planning beach vacations. An ABC/Washington Post poll (ABC/Washington Post 2012) found beaches the most popular summer vacation destination with 72% of Americans expressing a favorable opinion of going to the beach for summer vacation. Further, they found Americans spend a full 40% of their allotted vacation days at the beach and 52% of respondents planned to holiday at the beach in the next 12 months. Beaches have long been considered the number one family vacation destination, but Match.com (2012) reports that 72% of singles say the most important factor in choosing a summer travel destination is a beautiful beach. Going to beaches is not just an American obsession. Expedia.com (2012) found in a survey of 8599 adults in 21 countries that "... the beach is by far the favorite destination for the majority of the world's travelers."

Klein *et al.* (2004) performed a detailed analysis of tourism in the U.S. and concluded there was "... strong evidence for the unique quality of the coastal zone as a magnet for tourism." Indeed, coastal states receive about 85% of tourist-related revenues in the U.S. largely because beaches are tremendously popular (World Almanac 2012). Although there are many interior attractions from Yellowstone to the Grand Canyon and from Las Vegas to Branson, Missouri; the popularity of beaches dominates tourism. For example, Venice Beach, California, has 16 million tourist visits annually (Travel and Leisure 2012). This is almost 50% more visits than the combined visits to Yellowstone

(3.3 million), Yosemite (4.0 million), and the Grand Canyon (4.4 million) (National Park Service 2012a). California beaches alone had 659 million day visits in 2001 (California Department of Boating and Waterways and State Coastal Conservancy 2002) or 720 million in 2010 if adjusted for U.S. population growth (U.S. Census Bureau 2011). This compares with day visits of 280 million to all 388 National Park Service properties — including national seashores and monuments and buildings such as the Lincoln Memorial, Washington Monument, and White House (National Park Service 2012b). It is estimated that in 2001, approximately 180 million Americans made 2 billion visits to ocean, gulf, and inland beaches (Clean Beaches Council 2012). Assuming beach visits increase in proportion to increasing population, about 200 million Americans made 2.2 billion visits to beaches (Figure 5) in 2010 (U.S. Census Bureau 2011). As seen in Figure 6, this is twice as many visits as the combined 1.08 billion visits made to properties of the National Park Service (280 million), Bureau of Land Management (70 million), and all state parks and recreation areas (725 million) (National Association of State Park Directors 2012; Bureau of Land Management 2012). Moreover, many of these visits to state parks and recreation areas were visits to beaches. For example, state beaches in California account for only 2.7% of California state park holdings, but account for 72% of visits (King 1999). The 2.2 billion beach visits also dwarf the 137 million visitors to the top 20 theme parks in the U.S. in 2010 including properties of Disney, Universal, Six Flags, SeaWorld, Busch Gardens, Knotts Berry Farms, Hershey Park, Dollywood, and other theme parks (Themed Entertainment Association 2012).

Beaches make a large contribution to America's economy. Beach tourism in Florida made a contribution in 2005 of over \$60 billion to its economy in 2012 dollars (Murley *et al.* 2005; U.S. Bureau of Labor Statistics 2012d). Similarly, King (1999) shows that California beach tourism made a contribution in 1998 of \$73 billion to the state and national economy in 2012 dollars. Multiplying the ratio of visitors to national beaches (2.2 billion) and visitors to California beaches (720 million) by the contribution of California beach visitors to the national

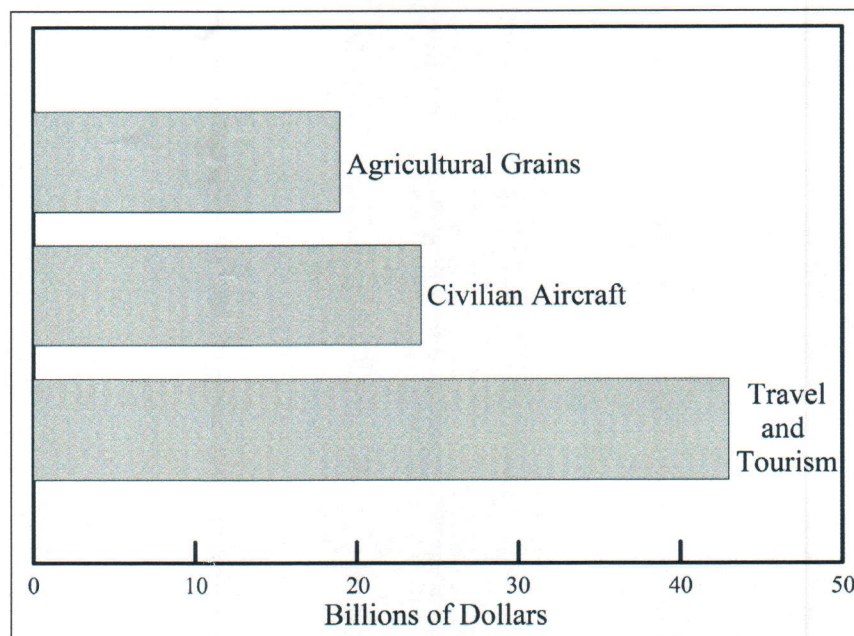


Figure 3. U.S. trade surplus among the few areas where exports exceed imports.

economy (\$73 billion) in 1998 yields an estimate that U.S. beaches currently contribute about \$225 billion annually to the national economy in 2012 dollars (King 1999; Clean Beaches Council 2012; and U.S. Bureau of Labor Statistics 2012d). This is seven times the \$31 billion contribution of the National Park Service system to the national economy (U.S. Department of the Interior 2012). Moreover, beach tourism contributes significant tax revenue to the federal government. Beach tourists in California paid an estimated \$8.1 billion in federal taxes in 2002 (California Department of Boating and Waterways and State Coastal Conservancy 2002). Again, taking the ratio of beach visits nationally to those in California and converting to 2012 dollars, beach visitors contribute about \$25 billion in federal tax revenue annually.

BEACH RESTORATION PROVIDES A STRONG ECONOMIC RETURN

Beach erosion is the No. 1 concern that beach tourists have about beaches (Hall and Staimer 1995). With about 20,000 mi of eroding shoreline and 2,700 mi of critically eroding shoreline (U.S. Army Corps of Engineers 1994), beach erosion is a serious threat to the nation's beach tourism and, therefore, a threat to the national economy. Restoring beaches through beach nourishment can greatly increase their attractiveness to tourists. For example, in 1989, 74% of those



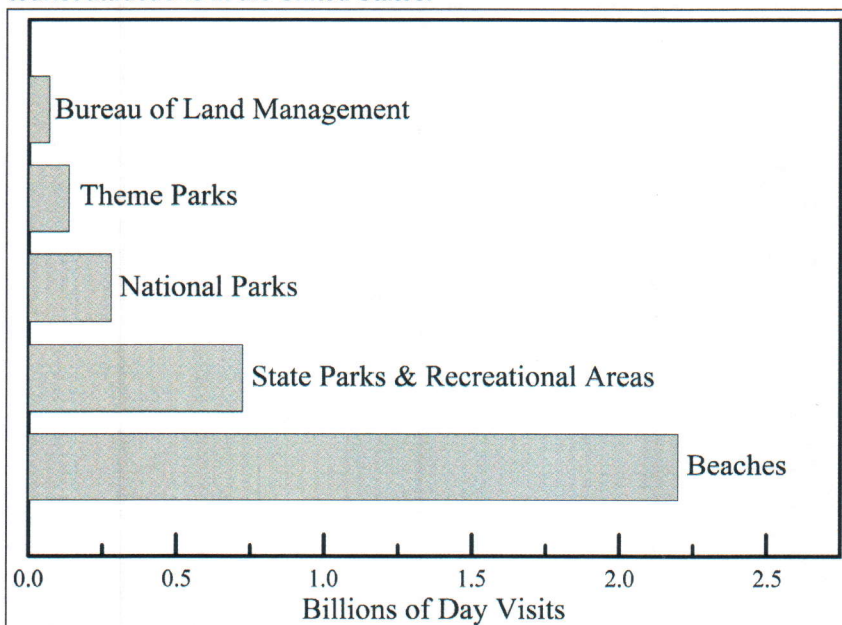
Figure 4. Beaches are America's leading tourist destination.

polled in New Jersey said the New Jersey shore was "going downhill." By 1998, only 27% thought the New Jersey shore was in decline, with 86% saying that the shore was one of New Jersey's best features (Zukin 1998). The difference between 1989 and 1998 was construction of the beach nourishment project from Sandy Hook to Barnegat Inlet, New Jersey, which is the largest beach nourishment project (in terms of volume) in the world (U.S. Army Corps of Engineers 2001). This project not only brought in tourists, but provided critical protection during Hurricane Sandy. After a tour of damage along the New Jersey from Hurricane Sandy, New Jersey Governor Chris Christie said: "If you look at the towns that have had engineered beaches, up and down the state, those are the towns whose damage was minimal. Other towns that didn't, the damage was much greater. I



Figure 5. Some of the 2.2 billion annual beach visits.

Figure 6. Day visits to beaches compared with day visits to the other major tourist attractions in the United States.



think that's a lesson for us as we move forward." (NJ.com, 2012)

A study of beach tourism in Florida (Klein and Osleeb 2010) concluded that beach nourishment projects can have a "dramatic impact on the tourism sector." The impact was seen in "... visible discontinuities and increases in the slope in ... tourism-sector earnings" after beach nourishment. They noted that tourism

earnings at Miami Beach increased 56% the year after completion of the beach restoration project. This one-year increase in tourism income of \$290 million was more than five times the \$51 million cost of the beach nourishment (Wiegel 1992).

Miami Beach is a good example of the economic benefits of beach restoration. Miami Beach had virtually no beach by mid-1970 (Figure 7). As a result, facilities

were run down, and Miami Beach was not the place to visit. By 1977, *Time* magazine (1977) reported: "So rapidly has the seven-mile-long island degenerated that it can be fairly described as a seedy backwater of debt-ridden hotels." Beach nourishment in the late 1970s rejuvenated Miami Beach and opened its beaches to the public (Figure 8). Beach attendance, based on lifeguard counts and aerial surveys, soared from 8 million in 1978 to 21 million in 1983 (Wiegel 1992). The federal government paid 58.7% of the cost of the beach nourishment, or about \$30 million, and the Corps of Engineers estimated the annual capitalized cost of the project was \$2.78 million with a federal share of \$1.6 million (Wiegel 1992). In 2011 tourists contributed \$13 billion to the Greater Miami economy with 44% of these tourists staying at Miami Beach and accounting for a proportionate \$5.7 billion to the Miami Beach economy (Greater Miami and the Beaches, 2012). International tourists make up 48% of all overnight visitors, and, since they spend more than domestic tourists, contribute at least \$2.9 billion to the Miami economy (Greater Miami and the Beaches 2012). Thus, international tourists alone make an annual contribution to the economy of Miami Beach that is over 50 times the cost of the \$51 million Miami Beach nourishment project and over 1,000 times its annual cost. In addition, the U.S. receives over \$1,800 in foreign exchange (\$2.9 billion) annually at Miami Beach for every \$1 of its share of the annual cost of the beach nourishment (\$1.6 million). This compares, for example, with a return of less than \$3 in corn trade surplus (\$13.7 billion) for each \$1 (\$4.6 billion) of crop subsidy. The \$4.6 billion in crop subsidy goes to 52 recipients, who then each receive an average annual corn subsidy payment over 50 times the federal government's annual share of the cost of the Miami Beach nourishment project (Environmental Working Group 2012).

It is instructive to compare the federal investment in beach infrastructure (beach nourishment) versus federal tax revenues from tourists. From 1950-1993 the federal government and its cost-sharing partners spent an average of \$34 million in 1993 dollars (\$54 million in 2012 dollars) annually on beach nourishment (U.S. Army Corps of Engineers 1994). Starting in the mid-1990s, the federal investment increased to about \$100 million a year (Mar-

lowe 1999), but then declined to a 2012 funding of only \$44 million (American Shore and Beach Preservation Association 2012). As shown earlier, beach tourists provide about \$25 billion in annual federal tax revenue. Therefore, for every \$1 the federal government spent on beach nourishment in 2012 (\$44 million), it collected about \$570 (\$25 billion) annually in tax revenues from beach tourists. Also shown earlier was that international tourists provide about \$9.5 billion in annual federal tax revenue. Thus, international tourists annually provide about \$215 in tax revenues for every \$1 the federal government spends on beach nourishment. Figure 9 compares what the federal government would spend in 10 years on beach nourishment at the 2012 rate (the one-year cost would be too small to see on the plot) versus tax income from international and beach tourists.

With almost eight times as many annual beach tourist visits (2.2 billion) as visits to all properties of the National Park Service (280 million), the recreational value of beaches is clear. However, the 2012 federal investment in beaches of \$44 million is less than 1.4% of the \$3.1 billion budget of the Park Service (National Park Service 2012c), which critics maintain is itself inadequate. The National Parks Conservation Association asserts that national parks are underfunded by \$500 million to \$600 million annually, have a \$10.8 billion backlog of needed maintenance, and 85% of those surveyed say parks should have sufficient funding to fully restore them (National Parks Conservation Association 2012). Similarly, many beach visitors would agree with Congressman Frank Pallone Jr. from New Jersey, who noted: "In the same way we look at our national parks as a national treasure, we should look at our beaches as a national treasure" (*New York Times* 2007).

For federal involvement in water resource projects, the Office of Management and Budget (OMB) requires the Corps of Engineers use a National Economic Development (NED) criterion for evaluating projects. This criterion assumes "full employment of the nation's resources." In the case of beach nourishment, OMB chooses to interpret the NED criterion as meaning that full employment of the nation's resources implies that any new economic activity within a beach community can only occur at the cost of economic activity elsewhere

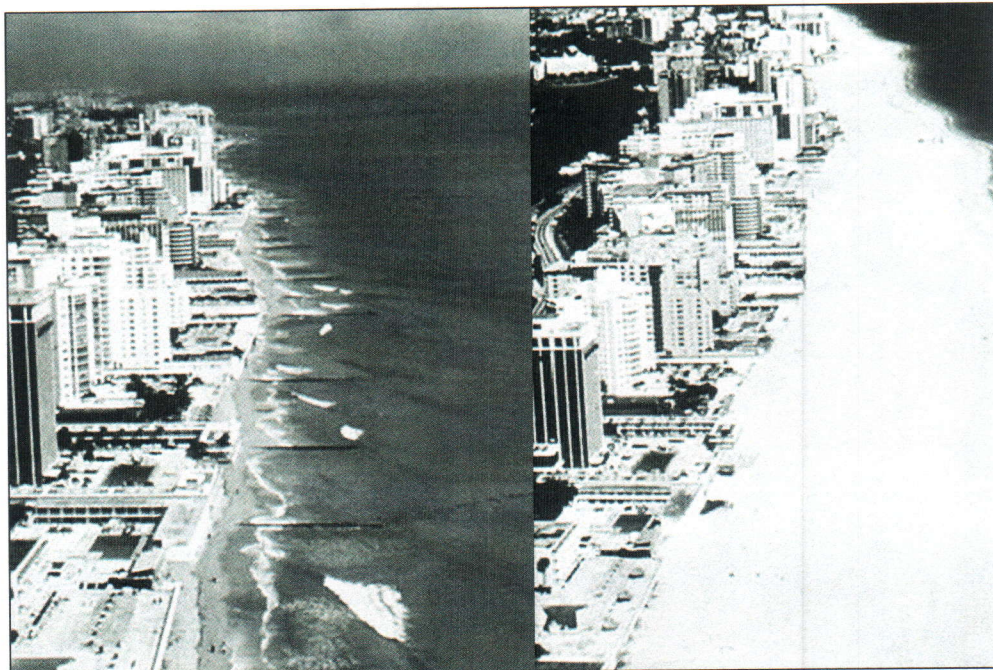


Figure 7. Miami Beach before and after beach nourishment.

Figure 8. Miami Beach today.



in the nation, so there is no net national economic gain due to beach restoration (Robinson, 2002).

King and Symes (2003) assert that OMB's policy unduly limits the federal interest in California's beaches. They examine OMB's assumption that visitors who decide not to recreate on California's beaches will spend their dollars elsewhere in the U.S., creating no net economic or tax impact for the federal government. They determined there is a

significant net loss to the state of California and the federal government from a failure to maintain California's beaches. Surveying 2,719 households in southern California and extending the analysis to all California beaches, they concluded that: "...a significant number of beach visitors would, in fact, travel outside of California and outside of the U.S. if there were no beaches in California." If California beaches were unavailable for recreation, they estimate that beachgoers would instead spend about \$3.1

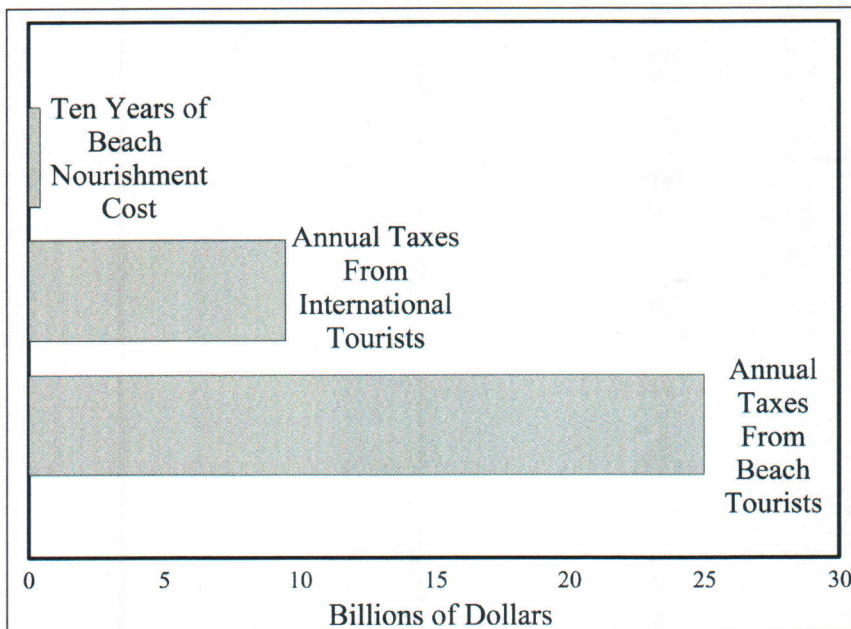


Figure 9. Ten years of federal beach nourishment costs at the 2012 rate versus annual federal revenues from international tourists and beach tourists.

Figure 10. Nourished beach in Spain.



billion in other states and \$2.4 billion outside the United States. King and Symes (2003) use standard techniques from the federal Bureau of Economic Analysis to show that the unavailability of California beaches would produce an annual economic loss to the California economy of \$8.3 billion and there would be a further loss of \$6 billion to the U.S. national economy. They note that the state of California and federal government would lose \$761 million and \$738 million respectively in taxes. With the annual federal cost of shore protection in California beaches ranging between \$12 million and 18 million, for every \$1 of

federal expenditures on shore protection for California, the federal government avoids tax losses of \$41 to \$62.

Current OMB policy relegates recreation projects to a lower priority than navigation, flood control, and environmental restoration projects. In fact, beach restoration projects that would have a large positive economic impact on tourism revenues have to be primarily justified on reduction of storm damage, with recreational benefits not permitted to account for half or more of the benefits. Relegating recreation to a lower priority than navigation is an example of thinking

locked in the past. For example, OMB assigns a high priority to a dredging project on the U.S. Pacific coast when its net effect is to allow Pacific Rim countries such as China to import products into the U.S. more cheaply, since the U.S. imports more products from these countries than it exports. Cheaper products are a value to consumers, but their importation increases the U.S. trade deficit and reduces the number of U.S. jobs. Recreation projects not only create jobs to support domestic tourists, but jobs to support foreign tourists as well. Over 90% of the benefits of the Miami Beach nourishment were recreational benefits, so the project would not have proceeded with current OMB policies (Wiegel 1992). Yet foreign tourists spend \$2.9 billion annually at Miami Beach, over 1,800 times the federal government's share of the annual cost of the nourishment. Inclusion of recreational benefits in Corps of Engineers projects would produce significant benefit/cost ratios and lead to more U.S. jobs.

WORLDWIDE COMPETITION FACING U.S.

Houston (1996) noted that T&T's importance to world economies, employment, and international competitiveness has not been lost on America's economic competitors. Germany and Japan have out spent the U.S. in infrastructure investment for decades including spending freely to maintain their beaches as infrastructure investments. For example, Germany spent about \$3.3 billion over 40 years on shore protection to protect a coastline less than 5% the length of the U.S. coast (Kellett 1992). This is about five times corresponding U.S. expenditures over the same period, 25 to 50 times a greater share of GDP, and 500 to 1,000 times the GDP per mile of coast (Houston 1995b). Japan's budget for shore protection and restoration has topped \$1.5 billion in a single year (Marine Facilities Panel 1991). This is more spent in a single year than the U.S. spent in over 40 years from about 1950 to 1990 (U.S. Army Corps of Engineers 1994). Spain with its extensive beaches is a major tourism competitor for the U.S. It conducted a five-year program in the early 1990s to both restore existing beaches and build new ones and spent more than the U.S. spent for beach restoration over 40 years (Figure 10) (Ministerio de Obras Publicas y Transportes 1993). The wisdom of the

extensive beach restoration in Spain is seen in the fact that currently tourism is the only booming part of a dismal Spanish economy (Riggins 2012). Almost 90% of international tourists to Spain choose coastal regions for their vacations (Yepes and Medina 2005).

U.S. LOSING LEAD

In the early 1990s the U.S. was dominant in world T&T. The U.S. Travel and Tourism Administration (1993) noted: "There is probably no country in the world that has a greater comparative advantage in tourism than the United States." *The Wall Street Journal* (1994) noted the U.S. domination of world T&T, saying the U.S. received over 45% of the developed world's travel-and-tourism revenues and 60% of its profits. However, Congress in 1996 abolished the U.S. Travel and Tourism Administration, whose primary function was marketing U.S. tourism internationally. The National Oceanic and Atmospheric Administration (1998) noted as a result of the abolishment: "The U.S. is (the) only country in the developed world without a government-funded National Tourism Office and (it) bodes badly for the country's future tourism growth."

The decline of the U.S. T&T industry started playing out in earnest in the 1990s as America's share of the global inbound tourism market dropped 35% from 1993 to 2005. The U.S. lost 18% of its international market share in just five years from 2000 to 2005. The significant drop in international tourists cost the American economy \$286 billion from 1993 to 2005 including \$44 billion in 2005 (National Tour Association 2007). The U.S. share of the global travel market decreased precipitously from 17.3% in 2000 to 11.2% in 2010 (National Tour Association 2012).

There is a world economy in tourism that gives consumers ample choices and produces stiff worldwide competition for tourists. If Florida beaches become run down, German tourists can choose Spanish beaches. If Hawaiian beaches decline, Japanese tourists can choose Australia's Gold Coast beaches that have been rejuvenated. In fact, there is evidence that international tourists are shifting away from the U.S. For example, Waikiki beaches are severely eroded, and the number of international visitors to Hawaii is lower in 2010 than in 1988 (State of



Figure 11 (above). Left picture is a portion of Waikiki Beach. Right is the restored Gold Coast of Australia.



Figure 12 (left). Greek tourism ad.

Hawaii 2012). In contrast, Queensland, the location of Australia's Gold Coast, has pulled even with Hawaii in the number of international tourists with each having about 2 million annually (Figure 11) (Tourism Queensland 2012). Hawaii was spurred into action to address the eroding Waikiki beaches when a study showed that if Waikiki were allowed to continue eroding away, there would be an annual loss in tourist revenues of \$2 billion and tax revenues of \$150 million (Hawaii Tourism Authority 2012).

This worldwide competition is well recognized outside the U.S. For example, Houston (1996) noted that in the mid-1990s the U.S. spent only \$16 million in advertising to international tourist markets, and this compared to Spain's \$170 million in advertising (*Washington Post* 1995). At the time, the U.S. ranked 33rd in the world in international tourism advertisement, trailing Malaysia and Tunisia, (Brooks 1995) and spending less than 4% of what Greece spent (Figure 12) and 5% of what Spain spent (National Tour Association 2007). However, even this minimal U.S. spending on advertisement to international tourist markets was eliminated when Congress abolished the U.S. Travel and Tourism Administration in 1996. The U.S. then had no nationally-funded tourism advertising while countries such as Australia, Canada, France, Greece, Singapore, and Spain each spent \$100 million or more annually in the

1990s on international marketing (Brooks 1995; Hotel-online 1998; Balzer 1998). The U.S. started to recognize that its neglect of T&T was hurting its economy and passed the Travel Promotion Act of 2010. This Act initiated in 2012 the Brand USA public/private partnership, which has the mission of promoting increased international travel to the U.S. (Brand USA 2012).

THE FUTURE

The future of T&T in the U.S. is not rosy as a result of its lack of investment. The U.S. ranks 133 in the world in the growth of T&T infrastructure investments (World Travel and Tourism Council 2007). As a result, it ranks 128 of 181 countries in expected T&T growth in 2012 and is forecast to rank 132 from 2012 to 2022 (World Travel and Tourism Council 2011a), lagging countries such as Namibia, Azerbaijan, Kyrgyzstan, and Zambia, which have few tourist attractions (World Travel and Tourism Council 2012).

CONCLUSIONS

T&T is among America's leading industries, employers, and earners of foreign exchange; and beaches are America's leading tourist destination (Figure 13). Few Americans realize that beaches are a key driver of America's economy and that they support U.S. competitiveness in a world economy. Perhaps Americans do not appreciate the importance of

- Marlowe, Howard. 1999. "Assessing the Economic Benefits of America's Coastal Regions." <http://www.coastalcoalition.org/facts/coastalregions.html>.
- Match.com 2012. "Match.com Names Miami Best Summer Vacation Destination for Singles." <http://match.mediaroom.com/index.php?s=43&item=97>
- Ministerio de Obras Publicas y Transportes 1993. "Recuperando La Costa." Serie Monografias, Centro de Publicaciones, Madrid, Spain.
- Murley, J.F., L. Alpert, W.B. Stronge, and R. Dow 2005. "Tourism in paradise: The Economic Impact of Florida Beaches." Proceedings of the 14th Biennial Coastal Zone Conference, New Orleans, Louisiana, http://www.csc.noaa.gov/cz/CZ05_Proceedings/pdf%20files/Alpert.pdf
- National Association of State Park Directors 2012. "America's State Parks Alliance Launched to Advocate for Healthful and Economic Benefits Provided by the 50 States." <http://www.nasdp.org>.
- National Parks Conservation Association 2012. "Made in America, Investing in National Parks for Our Heritage and Our Economy." http://www.npca.org/assets/pdf/Made_In_America_Report.pdf.
- National Oceanic and Atmospheric Administration 1998. "Promotion of International Tourism to the United States." http://www.yoto98.noaa.gov/yoto/meeting/tour_rec_316.html.
- National Park Service 2012a. "Ten Most Visited Parks, Park Visitation Figures." <http://www.npca.org/exploring-our-parks/visitation.html?gclid=COzezfij4LICFQcGnQodTXcAPg>.
- National Park Service 2012b. "NPS Stats, National Park Service Visitor Use Statistics." <https://irma.nps.gov/Stats/>.
- National Park Service 2012c. Budget. <http://www.nps.gov/aboutus/budget.htm>.
- National Science Foundation 2012. "Deficit in Goods Trade, Surplus in Services and Intangibles, Science and Engineering Indicators 2012, Overview." <http://www.nsf.gov/statistics/seind12/pdf/overview.pdf>.
- National Tour Association 2007. "The Case for a Cabinet-Level Tourism Department in the United States Federal Government." http://www.ntaonline.com/doc_lib/caseforcabinetleveltourism.pdf.
- National Tour Association 2012. "NTA Questions House Vote to Defund Brand USA." <http://www.ntaonline.com/articles/index.cfm?acton=view&articleID=2447&menuID=0>.
- New York Times 2007. "The Search for Sand is No Day at the Beach." 16 September 2007, <http://travel.nytimes.com/2007/09/16/travel/16heads.html>.
- New York Times 2012a. "Unboxed Extra: I.B.M. and America's Job Challenge." <http://bits.blogs.nytimes.com/2012/01/01/unboxed-extra-ibm-and-americas-job-challenge/>.
- New York Times 2012b. "Travel Hiring Is on the Rise." http://www.nytimes.com/2012/01/24/business/for-travel-and-tourism-hiring-is-on-the-rise-cautiously.html?_r=0.
- NJ.com 2012. "Dune size determined extent of storm damage on NJ beaches." Available online at http://www.nj.com/news/index.ssf/2012/11/dune_size_determined_extent_of.html.
- Riggins, J., 2012. "Despite economy, Spanish tourism prospers." Smartplanet <http://www.smartplanet.com/blog/global-observer/despite-economy-spanish-tourism-prospers/3579>.
- Robinson, D., 2002. "What are the National and Regional Economic Benefits of Shore Protection Projects?" Proceedings of a Workshop for the National Shoreline Management Study, 23-24 July 2002, The George Washington University, Washington DC.
- State of Hawaii, Department of Business, Economic Development, and Tourism 2012. "Annual Visitor Research Report." <http://hawaii.gov/dbedt/info/visitor-stats/visitor-research/2011-annual-visitor.xls>.
- Themed Entertainment Association 2012. 2010 "Theme Index." <http://www.themeit.com/etea/2010Report.pdf>
- Time magazine 1977. "Business: Ebb tide at Miami Beach." Available online at <http://www.time.com/time/magazine/article/0,9171,945864,00.html>.
- Tourism Queensland 2012. "Tourism Facts and Figures - Year ended June 2012." http://www.tq.com.au/fms/tq_corporate/research%20%28NEW%29/Summary%20Visitor%20Statistics/12%20June%20Tourism%20Facts%20and%20Figures.pdf.
- TradeReform 2012. "U.S. high-tech jobs lost as technological lead shrinks." <http://www.tradereform.org/2012/01/u-s-high-tech-jobs-lost-as-technological-lead-shrinks/>
- Travel and Leisure 2012. "America's most crowded beaches." <http://www.travelandleisure.com/articles/americas-most-crowded-beaches>.
- TripAdvisor 2011. "TripAdvisor Announces 2012 Travel Trends Forecast." http://www.tripadvisor.com/PressCenter-i4894-c1-Press_Releases.html.
- United Nations 2010. "GDP/Breakdown at Current Prices in US Dollars (All Countries)." <http://unstats.un.org/unsd/snaama/dnlntransfer.asp?fid=2>.
- U.S. Army Corps of Engineers 1994. "Shoreline Protection and Beach Erosion Control Study, Phase I: Cost Comparison of Shoreline Protection Projects of the U.S. Army Corps of Engineers." Water Resources Support Center, Washington, DC, USA.
- U.S. Army Corps of Engineers 2001. "Sandy Hook to Barnegat Inlet, New Jersey, Beach Erosion Control Project." <http://www.nan.usace.army.mil/LinkClick.aspx?fileticket=9uKLSa8OAlM%3d&tabid=4611&mid=12742>.
- U.S. Bureau of Labor Statistics 2012a. "Manufacturing: NAICS 31-33, Workforce statistics." <http://www.bls.gov/iag/tgs/iag31-33.htm#workforce>.
- U.S. Bureau of Labor Statistics 2012b. "Table A-1. Employment status of the civilian population by sex and age." <http://www.bls.gov/news.release/empsit.t01.htm>.
- U.S. Bureau of Labor Statistics 2012c. "Databases, Tables & Calculators by Subject, Manufacturing." <http://data.bls.gov/timeseries/CES3000000001>.
- U.S. Bureau of Labor Statistics 2012d. "Databases, Tables & Calculators by Subject, CPI Inflation Calculator." http://www.bls.gov/data/inflation_calculator.htm.
- U.S. Census Bureau 2011. "Population Distribution and Change: 2000 to 2010." <http://www.census.gov/prod/cen2010/briefs/c2010br-01.pdf>.
- U.S. Census Bureau 2012. "U.S. International Trade in Goods and Services, Annual Revision for 2011." http://www.census.gov/foreign-trade/Press-Release/2011pr/final_revisions/#full.
- U.S. Department of Commerce 2011. "United States Travel and Tourism Exports, Imports, and the Balance of Trade: 2011." http://www.tinet.ita.doc.gov/outreachpages/download_data_table/2011_International_Visitor_Spending.pdf.
- U.S. Department of the Interior 2012. "The Department of the Interior's Economic Contributions, Fiscal Year 2011." http://www.doi.gov/ppa/upload/2011-Econ-Report-FINAL-07_27_2012.pdf.
- U.S. Travel Association 2009. "The Impact of Travel on State Economies, 2009 Research Report." <http://commerce.idaho.gov/assets/content/docs/Research/Impact%20of%20Travel%20on%20State%20Economies%2009.pdf>.
- U.S. Travel Association 2012. "Talking Points and Facts." <http://www.ustravel.org/marketing/national-travel-and-tourism-week/talking-points-and-facts>.
- U.S. Travel and Tourism Administration 1993. "World Tourism at the Millennium." U.S. Department of Commerce, April 1993, 97 p.
- Wall Street Journal 1994. "The Other American Dream Team." 15 February 1994.
- Washington Post 2012. "U.S. losing high-tech manufacturing jobs to Asia." http://www.washingtonpost.com/business/economy/us-losing-high-tech-manufacturing-jobs-to-asia/2012/01/17/gIQA9P1S6P_story.html.
- Washington Post 1995. "Chefs Bemoan a Reduction in Their Favorite Deduction." Page D4, 11 April 1995.
- Wiegel, R.L., 1992. "Dade County, Florida, Beach Nourishment and Hurricane Surge Study." *Shore & Beach*, 60 (4), 2-26.
- World Almanac 2012. Funk & Wagnalls Corp., Mahwah, NJ.
- World Travel and Tourism Council 2007. "The 2007 Travel and Tourism Economic Research." http://www.wttc.travel/bin/pdf/original_pdf_file/world.pdf.
- World Travel and Tourism Council 2011a. "Travel & Tourism, Economic Impact 2012, World." http://www.wttc.org/site_media/uploads/downloads/world2012.pdf.
- World Travel and Tourism Council 2011b. "Travel & Tourism, Economic Impact 2012, United States." http://www.wttc.org/site_media/uploads/downloads/united_states2012.pdf.
- World Travel and Tourism Council 2012. "League Table Summary, 2012." http://www.wttc.org/site_media/uploads/downloads/NewLeagueTableSummaryBase201.pdf.
- Yepes, V., and J.R. Medina 2005. "Land Use Tourism Models in Spanish Coastal Areas. A Case Study of the Valencia Region." *J. Coastal Res.*, SI 49, 83-88, ISSN 0749-0208.
- Zukin, Cliff, 1998. "New Jerseyans, Summer and Shore Features: A Long Term Look, The Shore - Looking up (Save the Beach Passes)." *The Star-Ledger/Eagleton-Rutgers Poll*, <http://www.rci.rutgers.edu/~eaglepol/Ledger.dir/Release119.dir/release3.htm>.

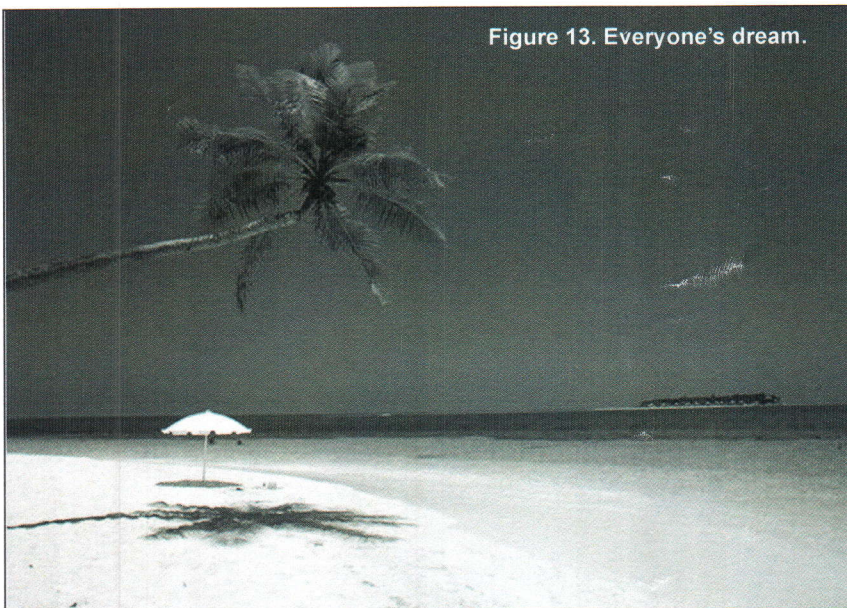


Figure 13. Everyone's dream.

tourism to the national economy because 98% of the 1.4-million tourism-related U.S. businesses are classified as small businesses, and this makes the industry extremely fragmented (U.S. Travel and Tourism Administration 1993). Lacking national advertising from either this fragmented industry, or until recently a national travel office, the importance of T&T to the national economy has not been communicated to the American people. The conclusion one draws today is the same as that noted by Houston (1995a): "Without a paradigm shift in attitudes toward the economic significance of travel and tourism and necessary infrastructure investment to maintain and restore beaches, the U.S. will continue to relinquish a dominant worldwide lead in its most important industry."

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REFERENCES

- ABC/WashingtonPost 2012. "Summer Vacation Perennial: The Mountains or the Beach?" <http://www.langerresearch.com/uploads/1127a31FavorabilityNo31.pdf>.
- American Shore and Beach Preservation Association 2012. "Obama Budget a Disappointment to National Coastal Advocacy Group." http://www.asbpa.org/pdfs/ASBPAPress%20Release_Feb142011.pdf.
- Balzer, S., 1998. "Congress weighs \$100M dowry for U.S. tourism." *The Business Journal*, <http://phoenix.bcentral.com/phoenix/stories/1998/08/17/story7.html>.
- Blinder, A.S., 2009. "On the measurability of off-shorability." <http://voxeu.org/article/twenty-five-percent-us-jobs-are-offshorable>.
- Brand USA 2012. "Tourism Remains an Economic Bright Spot: International Traveler Spending On Pace for A Record Year." <http://www.thebrandusa.com/press-releases/eContent.asp?pg=Tourism+Remains+an+Economic+Bright+Spot:+International+Traveler+Spending+On+Pace+for+A+Record+Year&content=119&cat=16>.
- Brooks, B., 1995. Interview with Professor Robert Bryer, Florida State School of Business. *Florida State Times*, <http://www.fsu.edu/~fstime/FSTimes/Volume2/Issue1/qanda.html>.
- Bureau of Land Management 2012. "The BLM's Priorities for Recreation and Visitor Services." <http://www.blm.gov/pgdata/etc/medialib/blm/id/publications.Par.99986.File.dat/revvisit.pdf&ei=PQNqUKrYG5SC9QTVloGgDg&usg=AFQjCNEj1fy4IK6AmYyPLZ70KOhayDX78g&sig2=35QF8Jx8VZG7A3K8ajWxQQ>.
- California Department of Boating and Waterways and State Coastal Conservancy 2002. California Beach Restoration Study, January 2002, Sacramento, CA. <http://www.dbw.ca.gov/PDF/Reports/BeachReport/FULL.pdf>.
- Clean Beaches Council 2012. "Clean Beaches Vital to US Economic Recovery." <http://www.cleanbeaches.com/>.
- Computerworld 2010. "IBM stops disclosing U.S. headcount data." http://www.computerworld.com/s/article/9169678/IBM_stops_disclosing_U.S._headcount_data.
- Environmental Working Group 2012. "Farm Subsidies, The United States Summary Information." <http://farm.ewg.org/region.php?fips=00000&progcode=total&yr=2011>.
- Expedia.com 2012. "Expedia Releases 2012 Flip Flop Report: Study Examines Beachgoer Behavior and Preferences Across Five Continents." <http://mediaroom.expedia.com/travel-news/expedia-flip-flop-report-1671>.
- Greater Miami and the Beaches 2012. Greater Miami and the Beaches, 2010 Visitor Industry Overview: Visitor Profile, Economic Impact, Hotel Performance, Jobs. <http://www.miamiandbeaches.com/Pictures/WebRpt/Annual%20Report%202010.pdf>.
- Hall, C., and M. Staimer 1995. "Concerns about the coast." *USA Today*, Page 1A, 9 August 1995.
- Hawaii Tourism Authority 2012. "Waikiki Beach Maintenance Project." http://hawaii.gov/dlnr/occl/manuals-reports/110211%20Waikiki%20Beach%20Flier.pdf/at_download/file.
- Hotel-online 1998, "Increased Pressure on National Promotional Budgets." http://www.hotel-online.com/News/PressReleases1998_4th/Nov98_PATA.html.
- Houston, J.R., 1995a. "The Economic Value of Beaches." The CERCular, Coastal Engineering Research Center, Waterways Experiment Station, Vol. CERC-95-4, Dec 1995, 1-4.
- Houston, James. R., 1995b. "Beach Nourishment, Coastal Forum." *Shore & Beach*, 63(1), 21-24.
- Houston, J.R., 1996. "International Tourism & U.S. Beaches." *Shore & Beach*, 64(2), 3-4.
- Houston, J.R., 2002. "The Economic Value of Beaches — 2002 Update." *Shore & Beach*, 70 (1), 9-12.
- Houston, J.R., 2008. "The Economic Value of Beaches — a 2008 Update." *Shore & Beach*, 76 (3), 22-26.
- Kelletat, D., 1992. "Coastal Erosion and Protection Measures at the German North Sea Coast." *J. Coastal Res.*, 8(3), 699-711.
- King, P., 1999. "The Fiscal Impact of Beaches in California." Public Research Institute, University of San Francisco, <http://online.sfsu.edu/~pgking/handouts/thefiscalimpactofbeaches.pdf>.
- King, P., and D. Symes 2003. "The Potential Loss in Gross National Product and Gross State Product from a Failure to Maintain California's Beaches." San Francisco State University, <http://userwww.sfsu.edu/pgking/Econ%20Impact%20of%20Out%20of%20State%20and%20For%20tourism%20v7.pdf>.
- Klein, Y.L., and J. Osleeb 2010. "Determinants of Coastal Tourism: A Case Study of Florida Beach Counties." *J. Coastal Res.*, 26(6), 1149-1156. <http://www.jcronline.org/doi/pdf/10.2112/2FJCOASTRES-D-09-00152.1>
- Klein, Y.L., J. Osleeb, and M. Viola 2004. "Tourism-generated earnings in the coastal zone: A regional analysis." *J. Coastal Res.*, 20(4), 1080-1088. West Palm Beach (Florida). ISSN 0749-0208.
- Marine Facilities Panel 1991. "U.S. Japan Wind and Seismic Effects Panel." 17th Joint Meeting, J-(4), 1-9, Tokyo, Japan.